ABSTRACT OF THE DISCLOSURE

A sputtering target contains a target material including as constituent elements Ag, In, Te and Sb with the respective atomic percents (atom.%) of α, β, γ and δ thereof being in the relationship of $0.5 \leq \alpha < 8$, $5 \leq \beta \leq 23$, $17 \leq \gamma \leq 38$, $32 \leq \delta \leq 73$, $\alpha \leq \beta$, and $\alpha + \beta + \gamma + \delta = 100$, and a method of producing the above sputtering target is provided. An optical recording medium includes a recording layer containing a phase-change recording material which includes as constituent elements Ag, In, Te and Sb with the respective atomic percents of α, β, γ and δ thereof being in the relationship of $1 \leq \alpha < 6$, $7 \leq \beta \leq 20$, $20 \leq \gamma \leq 35$, $35 \leq \delta \leq 70$, and $\alpha + \beta + \gamma + \delta = 100$, and is capable of recording and erasing information by utilizing the phase change of the recording material in the recording layer. A method of forming the above recording layer for the optical recording medium is also provided. In addition, there is provided an optical recording method using the above-mentioned phase-change optical recording medium.